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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,863

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Robert Haes

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EXAMINER

GONZALEZ, MADELINE

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

11/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/595,863

**Applicant(s)**

HAES, ROBERT

**Examiner**

MADELINE GONZALEZ

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

In reply to applicant's response dated June 25, 2009

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 10 and 18-20 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over a combination of Patterson (GB 2294649) and Chen (U.S. 6,319,300).

With respect to **claims 1 and 19**, Paterson discloses a filter element 10, as shown in Fig. 1, having:

- two pleated filter cloths 11, 12, mounted so that their folds are oppositely directed to form a series of lozenge-sectioned filtration chambers;
- the end edges of said cloths 11, 12, being clamped by edge strips 34, as shown in Fig. 5, one located at each end of the filter 10;
- the edge strips 34 each being formed as mouldings in the form of generally tubular members which provide rigid side elements, each tubular member having a longitudinal slot in one wall thereof into which the end edge regions of the filter cloth are inserted (see page 7, lines 3-6), and retained by

clamping means which press parts of the end regions of the filter cloths 11, 12, against the inner face of said slotted wall to either side of said slot, the clamping means having means 33 bearing on the inner surface of a wall of the tubular member opposite to the slot, as shown in Fig. 5.

Patterson **lacks** the edge strips being at least as wide as the pleats formed in the filter cloths.

Chen teaches a filter sheet 29 having the end edges clamped by horizontal lintel 13, as shown in Fig. 2, said lintel 13 being at least as wide as the pleats formed in the filter sheet 29, in order to protect the filter edges from being hit or damaged (see col. 1, lines 8-15 and col. 3, lines 17-50). It would have been obvious to provide the edge strips disclosed by Patterson at least as wide as the pleats formed in the filter cloths as taught by Chen in order to protect the filter edges from being hit or damaged (see col. 1, lines 8-15 and col. 3, lines 17-50). Furthermore, the specific dimension claimed by applicant, i.e., at least as wide as the pleats formed in the filter cloths, is considered to be nothing more than a choice of engineering skill, choice or design that a person having ordinary skill in the art would have found obvious during routine experimentation based among other things, on desired accuracy, since the courts have held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than a prior art device, the claimed device was not patentably distinct from the prior art device (see *In re Gardner v. TEC Systems, Inc.*,

725 F.2d 1338, 220 USPQ 777 (FED. Cir. 1984), cert. Denied, 469 U.S. 830, 225 USPQ 232 (1984)).

With respect to **claim 2**, Paterson discloses wherein the clamping member 34 includes a u-sectioned strip, as shown in Fig. 5.

With respect to **claim 3**, Paterson discloses wherein said pleated filter cloths 11, 12, are also secured at top and bottom to top and bottom frame members 13, 14, as shown in Fig. 1.

With respect to **claim 4**, Paterson discloses wherein the top and bottom edges of said pleated filter cloths 11, 12, are encapsulated into moulded top and bottom frame members 13, 14, as shown in Fig. 1.

With respect to **claim 5**, Paterson discloses reinforcing members 33 embedded within the edge strips 34 along a longitudinal axis, as shown in Fig. 5.

With respect to **claim 6**, Paterson discloses wherein the reinforcing members 33 include rod or profiles made from fibers, braid or other textiles of glass, carbon or synthetic material (see page 2, lines 29-31).

With respect to **claim 7**, Paterson discloses wherein the edge strips 34 each includes a generally tubular member having a longitudinal slot in one wall thereof into which the end edges of the filter cloths 11, 12, are inserted, and retained by a clamping member, as shown in Fig. 5.

With respect to **claim 10**, Patterson discloses wherein the edge strip 34 is of a generally elliptical cross-section, as shown in Fig. 5.

With respect to **claim 18**, Patterson discloses reinforcing members 33 embedded within the edge strips 34 along a longitudinal axis, as shown in Fig. 5, and reinforcing members 33 embedded within the top and bottom frame members 13, 14, as shown in Fig. 1.

With respect to **claim 20**, Paterson discloses a filter element 10, as shown in Fig. 1, having:

- two pleated filter cloths 11, 12, mounted so that their folds are oppositely directed to form a series of lozenge-sectioned filtration chambers;
- the end edges of said cloths 11, 12, being clamped by edge strips 34, as shown in Fig. 5, one located at each end of the filter 10;
- the edge strips 34 each being formed as mouldings in the form of generally tubular members which provide rigid side elements, each tubular member having a longitudinal slot in one wall thereof into which the end edge regions

of the filter cloth are inserted (see page 7, lines 3-6), and retained by clamping means which press parts of the end regions of the filter cloths 11, 12, against the inner face of said slotted wall to either side of said slot, the clamping means having means 33 bearing on the inner surface of a wall of the tubular member opposite to the slot, as shown in Fig. 5;

- reinforcing members 33 embedded within the edge strips 34 along a longitudinal axis, as shown in Fig. 5;
- wherein top and bottom edges of said cloths 11, 12, are also secured at top and bottom frame members 13, 14, the frame members 13, 14, being at least as wide as the pleats formed in the filter cloths 11, 12, as shown in Fig. 1.

Patterson **lacks** the edge strips being at least as wide as the pleats formed in the filter cloths.

Chen teaches a filter sheet 29 having the end edges clamped by horizontal lintel 13, as shown in Fig. 2, said lintel 13 being at least as wide as the pleats formed in the filter sheet 29, in order to protect the filter edges from being hit or damaged (see col. 1, lines 8-15 and col. 3, lines 17-50). It would have been obvious to provide the edge strips disclosed by Patterson at least as wide as the pleats formed in the filter cloths as taught by Chen in order to protect the filter edges from being hit or damaged (see col. 1, lines 8-15 and col. 3, lines 17-50). Furthermore, the specific dimension claimed by applicant, i.e., at least as wide as the pleats formed in the filter cloths, is considered to be nothing more than a choice of engineering skill, choice or design that a person having ordinary skill in the art would have found obvious during routine experimentation

based among other things, on desired accuracy, since the courts have held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than a prior art device, the claimed device was not patentably distinct from the prior art device (see *In re Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (FED. Cir. 1984), cert. Denied, 469 U.S. 830, 225 USPQ 232 (1984)).

Claims 9, 11 and 12 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson (GB 2294649A) and Chen (U.S. 6,319,300) as stated above with respect to claim 7 and further in view of Reinstad (U.S. 5,609,937).

**Claim 9** adds the further limitation of wherein the clamping member is provided by an indented part of the opposed side wall which is disposed to press the edge regions of the filter cloths against the inner surface of the slotted side wall of the strip.

Patterson and Chen **lack** an indented part.

Reinstad discloses a frame 10 for a panel-like filter, as shown in Fig. 1, having a clamping member 12 provided with an indented part 13 and flanges 14, 15, as shown in Fig. 4. The indented part 13 has a rib 13d which enables the flanges to be forcibly urged into continuous engagement with the sides of the filter (see col. 8, lines 35-37). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the clamping member disclosed by Patterson with an



indented part and rib as taught by Reinstad, in order to forcibly urged the sides of the clamping member in continuous engagement with the sides of the filter (see col. 8, lines 35-37).

**Claim 11** adds the further limitation of wherein the edge strip is of a generally rectangular cross-section.

**Claim 12** adds the further limitation of wherein the edge strip provides a curved slotted wall with flanges extending beyond a generally trapezoidal sectioned part.

Patterson, Chen and Reinstad **lack** the specific shapes of the edge strip.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a rectangular or trapezoidal shape to the edge strip disclosed by Patterson, Chen and Reinstad since the courts have held that a change in shape is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration was significant (see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)).

Claim 13 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson (GB 2294649A) and Chen (U.S. 6,319,300).

**Claim 13** adds the further limitation of wherein the edge strip is of a waisted oval shape, with opposed faces indented to define a two-lobed cross-sectional shape.

Patterson and Chen **lack** the specific shape of the edge strip.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a waisted oval shape to the edge strip disclosed by Patterson since the courts have held that a change in shape is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration was significant (see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)).

Claim 14 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson (GB 2294649A) and Chen (U.S. 6,319,300) as applied to claim 1 above, and further in view of Andress et al. (U.S. 5,472,379) [hereinafter Andress].

With respect to **claim 14**, Patterson and Chen **lack** the edge strips made of polyurethane resin.

Andress teaches a filter having a surrounding sealing layer 15 made of polyurethane resin (see col. 2, lines 6-14). It would have been obvious to make the edge strips disclosed by Patterson and Chen from polyurethane resin as taught by Andress since polyurethane resin is a very common material used in filter, for example, in end caps or seals (see col. 2, lines 6-14).

Claims 15-17 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson (GB 2294649A) and Chen (U.S. 6,319,300) as stated above with respect to claim 4 and further in view of Evans (U.S. 2,792,906).

**Claim 15** adds the further limitation of wherein the edge strips are formed to be complementary so that a plurality of elements can be connected together side to side.

Patterson and Chen **lack** the edge strips being complementary.

Evans discloses a supporting frame 10, as shown in Fig. 1, having edge strips 16, 18, formed to be complementary, as shown in Fig. 2, in order to form a rigid framework. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the edge strips disclosed by Patterson to be complementary as taught by Evans in order to provide a large filtration area, since it is well known in the art the use of filter units attached to one another to filter air for ventilating purposes (see col. 1, lines 15-21).

With respect to **claim 16**, Evans discloses wherein edge strip 18 is formed with two ribs which leave a channel 24 therebetween, and a complementary edge strip 16 is formed with a single rib 25 which is dimensioned and shaped so as to fit into the channel 24, as shown in Fig. 2.

With respect to **claim 17**, Evans discloses wherein similar interconnectable parts are provided on the top and bottom frame members 15, 17 (see col. 2, lines 14-26). It would have been obvious to one of ordinary skill in the art at the time the invention was

made to further provide the frame members disclosed by Patterson with interconnectable parts as taught by Evans in order to provide a better attachment between adjacent units (see col. 2, lines 14-26).

### ***Response to Arguments***

Applicant's arguments filed on June 25, 2009 have been fully considered but they are not persuasive.

In response to applicant's argument that Patterson lacks the edge strips to be as wide as the pleats formed in the filter clothes, and regarding the Chen reference: Chen teaches a filter sheet 29 having the end edges clamped by horizontal lintel 13, as shown in Fig. 2, said lintel 13 being at least as wide as the pleats formed in the filter sheet 29, in order to protect the filter edges from being hit or damaged (see col. 1, lines 8-15 and col. 3, lines 17-50). It would have been obvious to provide the edge strips disclosed by Patterson at least as wide as the pleats formed in the filter cloths as taught by Chen in order to protect the filter edges from being hit or damaged (see col. 1, lines 8-15 and col. 3, lines 17-50). Furthermore, the specific dimension claimed by applicant is considered to be obvious since the courts have held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than a prior art device, the claimed device was not patentably distinct from

the prior art device (see *In re Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (FED. Cir. 1984), cert. Denied, 469 U.S. 830, 225 USPQ 232 (1984)).

In response to applicant's argument that Patterson lacks a slotted wall: Patterson teaches edge strips 34 having a longitudinal slot in one wall thereof into which the end edge regions of the filter cloth are inserted (see page 7, lines 3-6). The slot is the same as or an obvious equivalent of the slot claimed by applicant and shown for example in Fig. 4 of applicant's disclosure, where the side member 29 has a slot 28 clamping the ends of the filter cloth.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MADELINE GONZALEZ whose telephone number is (571)272-5502. The examiner can normally be reached on M, T, Th, F- 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/  
Primary Examiner, Art Unit 1797

Madeline Gonzalez  
Patent Examiner  
October 29, 2009